

# EXHIBIT 1

## Redacted Version of Document to be Sealed

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION**

IN RE FLINT WATER LITIGATION

Case No. 5:16-cv-10444-JEL-MKM  
Hon. Judith E. Levy

This Document Relates To:  
BELLWETHER III

Case No. 5:17-cv-10164-JEL-KGA

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**DEFENDANTS VEOLIA NORTH AMERICA, LLC, VEOLIA NORTH  
AMERICA, INC., AND VEOLIA WATER NORTH AMERICA  
OPERATING SERVICES, LLC’S MOTION TO EXCLUDE CERTAIN  
OPINIONS OF EDWARD HOFFMAN, PH.D.**

Pursuant to Federal Rule of Evidence 702, Defendants Veolia North America, LLC, Veolia North America, Inc., and Veolia Water North America Operating Services, LLC (VNA) move to exclude certain opinions offered by Edward Hoffman, Ph.D. The opinions at issue are not the result of a reliable methodology. Therefore, those opinions are inadmissible under Rule 702.

As Local Rule 7.1(a) requires, VNA conferred with Plaintiffs’ counsel concerning this motion. After VNA explained the nature and legal basis for the motion, Plaintiffs’ counsel said that they would oppose it.

Respectfully submitted,

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Dated: May 24, 2024

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
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**DEFENDANTS VEOLIA NORTH AMERICA, LLC, VEOLIA NORTH  
AMERICA, INC., AND VEOLIA WATER NORTH AMERICA  
OPERATING SERVICES, LLC'S BRIEF IN SUPPORT OF THEIR  
MOTION TO EXCLUDE CERTAIN OPINIONS OF  
EDWARD HOFFMAN, PH.D.**

### **STATEMENT OF THE ISSUE PRESENTED**

1. Should the Court exclude certain opinions offered by Edward Hoffman, Ph.D., under Federal Rule of Evidence 702 because those opinions are not the result of a reliable methodology?

**VNA answers:** “Yes.”

**Plaintiffs answer:** “No.”

**CONTROLLING OR MOST APPROPRIATE AUTHORITIES**

*Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993)

*Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999)

*Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244 (6th Cir. 2001)

Fed. R. Evid. 702

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## INTRODUCTION

Dr. Edward Hoffman is a clinical psychologist who has issued opinions regarding the alleged psychological impairments and academic prospects of the seven Bellwether III plaintiffs: Y.A, E.A., G.B., C.D., R.E., J.N., and J.S. (Plaintiffs).<sup>1</sup>

For each Plaintiff, Dr. Hoffman offers two types of opinions. First, he offers an opinion about the Plaintiff's current psychological condition and academic capabilities. This opinion is based on psychological testing, academic records, and interviews with the Plaintiff's parents. For example, Dr. Hoffman opines that several of the Plaintiffs [REDACTED]

[REDACTED]

Second, he offers a counterfactual opinion about what each Plaintiff's academic capabilities would have been if he or she did not have the alleged impairments that Dr. Hoffman identified. This opinion is based on "scatter"—or variation—in the subtest scores on each Plaintiff's psychological testing. Specifically, Dr. Hoffman identified scatter in each Plaintiff's testing and then attempted to "correct" the scatter to arrive at the test score the Plaintiff allegedly would have achieved if not for his or her alleged impairment. For example, if the

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<sup>1</sup> To be precise, the guardians of Y.A, E.A., G.B., C.D., R.E., J.N., and J.S. are the actual plaintiffs. But for the sake of simplicity, VNA will refer to Y.A, E.A., G.B., C.D., R.E., J.N., and J.S. as Plaintiffs.



Plaintiff missed easier questions on a test but got a more difficult question correct (intra-test scatter), Dr. Hoffman would change the incorrect answers to correct answers and rescore the test. Or if a psychological test had two subtests and the Plaintiff scored relatively high on one and relatively low on the other (inter-test scatter), Dr. Hoffman would “correct” the low score to eliminate the discrepancy with the high score and then rescore the test. He opines that these corrected test results represent the Plaintiffs’ “unimpaired” capabilities.

These second, counterfactual or “unimpaired,” opinions should be excluded because the methodology underlying them is not reliable. Dr. Hoffman has not identified any academic research that supports his methodology or any evidence that his methodology is accepted as reliable by other psychologists. In fact, the underlying notion that “scatter” on subtest scores represents neurological impairment or brain injury has long been rejected in the field of psychology. It has been repeatedly disproven by empirical studies and, for decades, has been characterized as psychological “folklore” and an “exhausted research area” that “has the potential for doing more harm than good.” There is no support in the psychological literature or the practice of other psychologists for Dr. Hoffman’s methodology of “correcting scatter” to predict an individual’s academic capabilities without an alleged impairment.

## BACKGROUND

For each Plaintiff, Dr. Hoffman offers two types of opinions. First, he offers an opinion about the Plaintiff's current psychological condition—including alleged impairments—based on psychological testing, academic records, and parent interviews. Ex. 2, Hoffman Dep. (3/8/23) 273:4-279:20. He translates this analysis into an opinion about each Plaintiff's current academic limitations. His conclusions as to each Plaintiff are as follows:

- Y.A. [REDACTED]  
[REDACTED] Ex. 3, Hoffman Report (Y.A.) 10; Hoffman Dep. (3/8/23) 317:14-318:19.
- E.A. [REDACTED]  
[REDACTED] Ex. 4, Hoffman Report (E.A.) 7; Hoffman Dep. (3/8/23) 325:15-21.
- G.B. [REDACTED]  
[REDACTED] Ex. 5, Hoffman Report (G.B.) 8; Ex. 6, Hoffman Dep. (3/29/23) 366:24-367:4, 369:7-373:3.
- C.D. [REDACTED]  
[REDACTED] Ex. 7, Hoffman Report (C.D.) 12; Hoffman Dep. (3/29/23) 405:2-406:12.
- R.E. [REDACTED]  
[REDACTED] Ex. 8, Hoffman Report (R.E.) 9; Hoffman Dep. (3/29/23) 422:1-433:19.
- J.N. [REDACTED]  
[REDACTED] Ex. 9, Hoffman Report (J.N.) 10; Hoffman Dep. (3/29/23) 445:13-448:13.
- J.S. [REDACTED]  
[REDACTED] Ex. 10, Hoffman Report (J.S.) 8; Hoffman Dep. (3/29/23) 455:3-456:15.

Dr. Hoffman clarified that these are not opinions about Plaintiffs' likely real-world academic outcomes (*e.g.*, whether they are likely to [REDACTED] [REDACTED]). Instead, Dr. Hoffman's opinions refer to whether Plaintiffs will be able to satisfy national functional testing standards for the relevant academic level. Hoffman Dep. (3/29/23) 352:23-354:1, 367:5-369:5.

Second, Dr. Hoffman offers a counterfactual opinion about what each Plaintiff's academic capabilities would have been if he or she did not have the alleged impairments that Dr. Hoffman identified. Specifically, he opines that:

- [REDACTED] Hoffman Report (Y.A.) 10; Hoffman Dep. (3/8/23) 317:14-318:19.
- [REDACTED] Hoffman Report (E.A.) 7; Hoffman Dep. (3/8/23) 325:15-21.
- [REDACTED] Hoffman Report (G.B.) 8; Hoffman Dep. (3/29/23) 366:24-367:4, 369:7-373:3.
- [REDACTED] Hoffman Report (C.D.) 12; Hoffman Dep. (3/29/23) 405:2-406:12.
- [REDACTED]

[REDACTED]  
[REDACTED]  
Hoffman Report (R.E.) 9; Hoffman Dep. (3/29/23) 422:1-433:19.

- [REDACTED]  
[REDACTED]  
[REDACTED] Hoffman Report (J.N.) 10; Hoffman Dep. (3/29/23) 445:13-448:13.
- [REDACTED]  
[REDACTED]  
[REDACTED] Hoffman Report (J.S.) 8; Hoffman Dep. (3/29/23) 455:3-456:15.

These counterfactual opinions are based on “scatter analysis”: an attempt to eliminate the “scatter,” or variability, in the subtest scores on each Plaintiff’s psychological testing. Hoffman Dep. (3/8/23) 284:1-288:1. Dr. Hoffman explained this methodology using the following example: C.D. obtained a score of [REDACTED]

[REDACTED] *Id.* at 286:2-8. Dr. Hoffman “looked at intratest scatter” on the test and, after rescoring the test to eliminate that scatter, “[C.D.] would have achieved [REDACTED]

[REDACTED] *Id.* at 286:9-18; *see id.* at 287:1-4 (“if not for the scatter, intertest/intratest scatter, he would have been able to [REDACTED]”); Hoffman Report (C.D.) 6-7 (“[C.D.] displayed a large amount of intratest ‘scatter’ on this test. In its absence, he would have achieved [REDACTED]”). Dr.

Hoffman engaged in a similar practice of rescoring C.D.’s results on certain subtests of the WISC-V to eliminate scatter. Ex. 9 Hoffman Report (C.D.) 5-6 (“[C.D.] displayed a large amount of intratest ‘scatter’ on several subtests of the WISC-V. . . . In its absence, [C.D.] would have attained [REDACTED] [REDACTED] [REDACTED] [REDACTED]”).

Dr. Hoffman then assumed that, by rescoring these tests to eliminate scatter, he was eliminating the effect of C.D.’s [REDACTED] y and revealing what C.D.’s academic capabilities would have been without his alleged impairments. Accordingly, based on his rescoring of the tests to eliminate scatter, Dr. Hoffman opines that, [REDACTED] [REDACTED] [REDACTED] Hoffman Report (C.D.) 12; Hoffman Dep. (3/29/23) 405:2-406:12; *see, e.g.*, Hoffman Dep. (3/29/23) 369:13-373:19, 422:5-423:19, 445:18-448:13; 455:7-456:15 (describing similar methodology for other Plaintiffs).

## LEGAL STANDARD

Under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), district courts have a “basic gatekeeping obligation” to evaluate proposed expert testimony to ensure that it is both relevant and reliable. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999). A qualified expert may provide opinion testimony only if it will “help the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702(a). The opinion must be “the product of reliable principles and methods,” which the expert must have “reliably applied . . . to the facts of the case.” Fed. R. Evid. 702(c)-(d).

The Supreme Court has identified four non-exclusive factors that bear on whether an expert’s methodology “rests on a reliable foundation”: (1) “whether a theory or technique can be or has been tested”; (2) “whether it has been subjected to peer review and publication”; (3) “whether a technique has a known or potential rate of error and the existence of standards controlling its operation”; and (4) “whether the theory or technique enjoys general acceptance in a relevant scientific community.” *Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244, 251 n.5 (6th Cir. 2001) (citing *Daubert*, 509 U.S. at 593-94).

The proponent of the expert testimony bears the burden of establishing its admissibility by a preponderance of evidence. *Nelson*, 243 F.3d at 251.

## ARGUMENT

### **THE COURT SHOULD EXCLUDE DR. HOFFMAN'S COUNTERFACTUAL OPINIONS ABOUT WHAT PLAINTIFFS' ACADEMIC CAPABILITIES WOULD HAVE BEEN**

#### **A. Dr. Hoffman Did Not Identify Support For His Scatter Analysis**

The theory underlying Dr. Hoffman's counterfactual opinions is that the "scatter" in each Plaintiff's test results—the variability in that Plaintiff's scores on subtests—represents the effects of his or her alleged impairments or brain injuries. By rescoring the tests to eliminate the scatter—effectively changing each Plaintiff's lower subtest scores so that they correspond to his or her higher subtest scores—Dr. Hoffman asserts that he has produced a composite test result that reveals what each Plaintiff's capabilities would have been if he or she did not have an alleged impairment or brain injury. Dr. Hoffman then uses that counterfactual "unimpaired" test result to opine as to each Plaintiff's academic capabilities without his or her alleged impairment or brain injury. *See, e.g.*, Hoffman Dep. (3/8/23) 284:1-288:1; Hoffman Dep. (3/29/23) 369:13-373:19, 422:5-423:19, 445:18-448:13; 455:7-456:15.

Dr. Hoffman has not identified—either in his reports or in his depositions—any academic literature or studies that support this methodology. He has not identified any support for the practice of identifying an individual's "unimpaired" academic capabilities by eliminating scatter on his or her test results. Nor has he identified any methodology, let alone evidence supporting the reliability of that

methodology, for deciding which specific questions to “correct” when rescoring a test to “eliminate scatter.” Indeed, he did not identify support even for the underlying notion that scatter on test results represents the effect of a brain injury or cognitive impairment. And he has not identified any evidence that other psychologists consider his methodology to be reliable, let alone that it has general acceptance in the field. He has offered no support for the reliability of this methodology other than his own say so. That is not sufficient to carry Plaintiffs’ burden to establish the reliability of their expert’s methodology and, for that reason alone, Dr. Hoffman’s counterfactual opinions should be excluded. *See, e.g., Vaughn v. Konecranes, Inc.*, 642 F. App’x 568, 577 (6th Cir. 2016) (“The party seeking to have the testimony admitted bears the burden of showing ‘that the expert’s findings are based on sound science, and this will require some objective, independent validation of the expert’s methodology.’”) (quoting *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1316 (9th Cir. 1995) (on remand)); *Meemic Ins. v. Hewlett-Packard Co.*, 717 F. Supp. 2d 752, 765-66 (E.D. Mich. 2010) (same; “the expert’s bald assurance of validity is not enough”).

## **B. The Psychological Community Has Decisively Rejected Scatter Analysis**

The practice of “scatter analysis” has long been discredited in the field of psychology. The underlying assumption—that scatter in subtest scores is indicative of cognitive impairment or brain injury—repeatedly has been disproved. Almost 40



years ago, for example, an article described this type of analysis as “a vestige” and concluded that “the practice of scatter analysis has yielded little of significance. Even in its most benign form, scatter analysis has the potential for doing more harm than good. Scatter analysis on the WISC-R, the SBIS, and similar tests is . . . an exhausted research area, with little hope offered that any subsequent research efforts will prove beneficial.” Ex. 11, Jack Kramer, *et al.*, *The Viability of Scatter Analysis on the WISC-R and the SBIS: Examining a Vestige*, 5 J. of Psychoeducational Assessment 37 (1987).

Recounting the history of this discredited idea, the article noted that “[e]arly in the development of intelligence measures, . . . researchers suggested that scattered performance on IQ tests could be used to infer relative strengths and weaknesses and, thereby, could be useful in differential diagnosis and the determination of educational and clinical interventions.” *Id.* at 38. After reviewing the academic literature on this question with respect to the Stanford-Binet Intelligence Scale, however, the article concluded that “[t]he research evidence fails to support the ability of SBIS scatter analysis to predict reliably either membership in clinical groups or academic potential.” *Id.* at 39. Similarly, the article concluded that “[m]easures of subtest scatter on the WISC-R generally have been found to be unrelated to diagnostic category, academic achievement, or specific remedial strategies.” *Id.* at 42.

In conclusion, the article noted that, “[f]or whatever reason, scatter analysis has persisted in the absence of empirical support, as though this process were innocent until proven guilty.” *Id.* at 44. But it described the underlying assumption, “that there should be little difference among the subtest scores earned by normally functioning individuals,” as a “myth” that had been “dispelled” as early as 1976 by a study showing that “substantial scatter was the rule rather than the exception.” *Id.* at 43. Moreover, the article observed that “[t]he extent to which this finding has been validated may be unparalleled in the psychological literature.” *Id.* Following these empirical studies of the phenomenon, “uneven performance on intelligence tests no longer [can] be considered to characterize any special group of individuals” because “[t]he evidence clearly indicates that the amount of scatter in a profile should have no bearing on the valuation of an individual’s potential abilities.” *Id.*

Subsequent academic literature has confirmed the baseless and unreliable nature of scatter analysis. For example, an article from 1995 studied scatter on the newly released WISC-III, an update of the WISC-R addressed in the prior article. Ex. 12, Ron Dumont and John Willis, *Intrasubtest Scatter on the WISC-III for Various Clinical Samples vs. the Standardization Sample: An Examination of WISC Folklore*, 13 J. of Psychoeducational Assessment 271 (1995). The article found that “there is no empirical literature that supports the use of intrasubtest scatter as a meaningful method of hypothesis development when one is interpreting the [WISC]

tests for children. It may be that, over the years, the idea that intrasubtest scatter reflects some important aspects of a child’s cognitive development became what the present authors refer to as WISC folklore. . . . Although appealing and seemingly plausible, these and other contributions to WISC interpretation must be examined empirically so that clinicians and ‘multi-disciplinary teams’ do not base important decisions on beliefs that may be contrary to fact. . . . Clinicians must base clinical decisions and interpretations on fact, not on folklore.” *Id.* at 272-73.

Following an empirical analysis of scatter on the WISC-III, the authors concluded that “[t]he face-value assumption that groups of children identified as in need of some form of educational service would display more intrasubtest scatter than normal was not supported by this study. In fact, of the 12 cases in which scatter was evident and significantly different from the mean of the standardization group, 7 indicated significantly *less* scatter. Further analysis . . . demonstrated no meaningful difference among students with diagnosed disabilities, students referred and found not to have educational disabilities, and students in the original WISC-III norming sample.” *Id.* at 284. The authors concluded that the actual data—as opposed to “pernicious . . . folklore”—“make it abundantly clear that no diagnostic

inferences should be drawn from the presence or absence of ‘significant’ intrasubtest scatter.”<sup>2</sup> *Id.*

### **C. Dr. Hoffman’s Attempts To Justify His Scatter Analysis Are Meritless**

In his rebuttal report, Dr. Hoffman attempted to defend his methodology. The evidence he cites is either irrelevant or actually confirms that his methodology is unreliable. *See* Ex. 14, Hoffman Rebuttal Report, 18-19. For example, he cites a survey finding that some school psychologists use scatter on tests when making educational placement decisions. As an initial matter, the results of such a survey are irrelevant to both the scientific question whether scatter represents the effect of a brain injury or cognitive impairment and the methodological question whether changing an individual’s test scores to eliminate scatter provides an “unimpaired” assessment of the individual. In any event, the authors of the article expressly state that “[t]he results of research on the ipsative analysis of subtest and composite scores

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<sup>2</sup> Empirical testing also has disproved the concept of scatter analysis in psychological testing for adults. For example, a 2006 article “explore[d] the diagnostic usefulness of inter-subtest variability by comparing the scatter ranges of healthy individuals from the WAIS-III standardization sample and a group of patients with confirmed brain damage.” Ex. 13, Joseph Ryan, *et al.*, *Wechsler Adult Intelligence Scale-III Inter-Subtest Scatter: A Comparison of Brain-Damaged Patients and Normal Controls*, J. Clinical Psychology 1319, 1320 (Oct. 2006). Following an empirical analysis, the study found that “from a practical standpoint inter-subtest scatter among brain-damaged patients is no greater than among normal persons,” which means that “interpretation of WAIS-III inter-subtest scatter as a sign of brain damage appears unwarranted and should be avoided.” *Id.* at 1322.

[comparing an individual's subtest scores against each other] have been consistently negative over the past 30 years . . . it has repeatedly been found to lack clinical utility for differential diagnosis and treatment planning . . . [and it does] not reliably classify children and youth with and without [Specific Learning Disorder].” Ex. 15, John H. Kranzler, *et al.*, *How Do School Psychologists Interpret Intelligence Tests for the Identification of Specific Learning Disabilities?*, at 7-8, Contemporary School Psychology (Feb. 5, 2020).<sup>3</sup> The demonstrated unreliability of this method leads the authors to conclude that there is “a large research-to-practice gap regarding the use of evidence-based assessment practices, because the interpretative practices of many school psychologists appear to be inconsistent with well-known limitations of ipsative profile analysis.” *Id.* at 8. The authors then consider several reasons why this practice may have persisted among school psychologists despite having been repeatedly debunked and propose training methods to “immunize” future generations of school psychologists against this practice and to “discourage the use

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<sup>3</sup> Another of the studies that Dr. Hoffman cites is a working manuscript of this article. See Ex. 16, Nicholas F. Benson, A National Survey of School Psychologists' Practices in Identifying Specific Learning Disabilities (“*School Psychology* (in press) Manuscript Accepted for Publication”). A third of his citations is to a similar survey of school psychologists from a decade earlier, which takes a more neutral view as to the validity of the practice, stating that “[t]his article does not attempt to answer the question of the clinical utility of identifying psychologically meaningful differences among clinical groups in their patterns of subtest and factor scores.” Ex. 17, Steven I. Pfeiffer, *et al.*, *The Practitioner's View of IQ Testing and Profile Analysis*, 15 School Psychology Quarterly 376-385, 383 (2000).

of test interpretation practices with scant empirical support and promote the use of evidence-based practices.” *Id.* at 8-10.

Dr. Hoffman also cites an abstract of a study by Plaintiffs’ expert Dr. Jourdan (then known as Dr. Krishnan), which conducted “a discriminant function analysis . . . using IQ scores and ISS [Intra-Subtest Scatter] scores as discriminators of impairment status.” Dr. Jourdan found that, “[i]n comparison with a model including only the IQ scores, the model adding ISS scores did not improve classification.” Ex. 18, M. Krishnan, *et al.*, *Increased intra-subtest scatter on the Wechsler abbreviated scale of intelligence as a characteristic of mild cognitive impairment*, Abstracts/Archives of Clinical Neuropsychology 20, at 847 (2005). Accordingly, she concluded that “[h]eightedened subtest scatter . . . failed to discriminate significantly between healthy elders and individuals with [Mild Cognitive Impairment] in this sample.” *Id.* In other words, scatter does not correlate with impairment.

Finally, Dr. Hoffman cites a chapter in a book with the title “Does WISC-V Scatter Matter?” Ex. 19, Alan S. Kaufman, et al., *Intelligent Testing With The WISC-V* (2016). Here is the chapter’s conclusion: “Taken together, it appears that a simple answer to the question posed in the chapter title, Does WISC-V scatter matter?, is ‘no’ for diagnostic utility but ‘yes’ for [Personal Strengths and Weaknesses] analyses.” *Id.* at 267. The chapter finds that scatter between the index scores that

make up a full-scale IQ and between subtest scores (inter-subtest scatter) may “have clinically meaningful implications,” but that it does *not* correlate with any diagnostic categories such as cognitive impairment. *Id.* Indeed, with respect to inter-subtest scatter, the chapter finds that “variability across scores at the subtest level is common in the WISC-V normative sample,” *id.* at 263, and that “subtest scatter is in the normal range for most special groups,” with “the notable exception of the children with intellectual disability”—who had *less* scatter than the normative group, *id.* at 262. And the results are even worse for Dr. Hoffman’s analysis with respect to intra-subtest (or “Item-Level”) scatter. On that topic, the chapter’s authors note that there is no reliable, accepted method of even measuring such scatter, but that “[i]n general, results from [the author’s] exploratory analysis did not provide evidence of clinical utility in terms of distinguishing among normative, nonclinical, and special groups.”<sup>4</sup> *Id.* at 265-66.

Consistent with all of this academic literature, Defendants’ expert, Dr. David W. Thompson, opined that “scatter analysis as a meaningful endeavor has long been discarded” in the field of psychology and “Dr. Hoffman’s conclusions stemming

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<sup>4</sup> One of the studies that Dr. Hoffman cites does not address scatter, but whether psychologists treating children with certain disabilities should consider full scale IQ scores or the index scores that make up the full scale IQ (Verbal Comprehension, Perceptual Reasoning, Working Memory, and Processing Speed). Ex. 20, Catherine Fiorello, *et al.*, *Interpreting Intelligence Test Results for Children with Disabilities: Is Global Intelligence Relevant?*, 14 *Applied Neuropsychology* 2-12 (2007).

from his scatter analysis have no validity and should be disregarded.” Ex. 21, Thompson Report (Y.A.) 5. Dr. Thompson also noted that Dr. Hoffman’s methodology of deriving his counterfactual opinions about Plaintiffs’ academic capabilities without their alleged impairments by rescoring tests to eliminate scatter “is not consistent with the way that the tests were designed” and his assumption that the scatter represents the effect of a brain injury or cognitive impairment “ignores the presence of individual differences among examinees.” *Id.*

In sum, there is a good reason why Dr. Hoffman failed to identify support in the literature for the methodology he used to derive counterfactual opinions about the Plaintiffs’ academic potential. Since at least the late 1980s, psychologists have recognized that the type of analysis Dr. Hoffman employed is based on “folklore” and lacks any empirical basis. Contrary to Dr. Hoffman’s assumption, scatter on subtest scores does not represent impairment or brain injury: “substantial scatter [is] the rule rather than the exception.” Kramer, *supra*, at 43. Thus, Dr. Hoffman’s methodology of identifying scatter on Plaintiffs’ test results and rescoring the tests to eliminate that scatter is entirely speculative and does not reliably reveal anything about the Plaintiffs’ counterfactual academic potential. On the contrary, the academic literature “make[s] it abundantly clear that no diagnostic inferences should be drawn from the presence or absence of ‘significant’ intrasubtest scatter,” Dumont, *supra*, at 284, because “[t]he evidence clearly indicates that the amount of scatter in



a profile should have no bearing on the valuation of an individual's potential abilities," Kramer, *supra*, at 43.

Dr. Hoffman's methodology for deriving his counterfactual opinions decisively fails the test for reliability of expert testimony. *See generally Nelson*, 243 F.3d at 251 n.5 (citing *Daubert*, 509 U.S. at 593-94). Dr. Hoffman has not identified any evidence that his ultimate methodology has been tested, but the assumption underlying his methodology—that scatter on psychological test results reflects brain injury or impairment—repeatedly has been tested and disproved. Similarly, peer-reviewed articles consistently reject the concept of scatter analysis as a “myth” or “folklore” that has been repeatedly disproved by empirical studies. Furthermore, Dr. Hoffman has not identified any reliable methodology for deciding which specific questions to “correct” when rescoring tests to “eliminate scatter.” Finally, there is no evidence that Dr. Hoffman's method of “correcting” scatter to arrive at “unimpaired” test results for an individual is generally accepted in the field of psychology—the evidence is strongly to the contrary. Dr. Hoffman's opinions about Plaintiffs' counterfactual academic capabilities if they did not have their alleged impairments or brain injuries are not based on a reliable scientific methodology, but on false assumptions and raw speculation. They are junk science and should be excluded.

## CONCLUSION

The Court should exclude Dr. Hoffman's counterfactual opinions about Plaintiffs' academic capabilities without their alleged impairments.

Respectfully submitted,

**CAMPBELL, CONROY & O'NEIL, P.C. MAYER BROWN LLP**

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Veolia Water North America Operating Services, LLC*

Dated: May 24, 2024

**CERTIFICATE OF SERVICE**

I hereby certify that on May 24, 2024, I electronically filed the foregoing document with the Clerk of the Court using the ECF System, which will send notification to the ECF counsel of record.

Respectfully submitted,

/s/ James M. Campbell

Dated: May 24, 2024